Office of Energy Policy Newsletter, November 2019

#### Staff Notes and Reads

Greg Bone shares a recent article from UTILITY DIVE e-newsletter, From EV integration to wildfire prevention, utilities accelerate AI use to drive efficiencies, profits. Billions of internet-connected devices interact with the power grid right now, and experts say utilities will need smarter solutions.

Lona Brewer is sharing articles relating to electric vehicles: Ford unveils Mustang Mach-E starting at roughly \$44,000, CNBC e-news, and REV-UP Electric Vehicles: A Nationwide Study of Electric Vehicle Shopping Experience, by Sierra Club.org

Transforming Energy e-news article by the U.S. Department of Energy National Renewable Energy Laboratory, <u>Creating Resources for Resilience with Cable Broadband</u> Data in NEW NREL Project, is shared by Kenya Stump.

LAZARD News article, Levelized Cost of Energy and Levelized Cost of Storage 2019, is shared by Greg Bone.

Navajo Generating Station--the largest coal plant in the west--has shut down AZ Central News, is shared by Lona Brewer.

Eileen Hardy shares a US DOE article, <u>Energy Department Manufacturing Institute</u> Announces Call for Proposals to Address Challenges in Plastics Recycling.

Kenya Stump is reading, *This is the Golden Age of Innovation*, The HILL-- a look at quantum computers and future applications by US Department of Energy.

Amanda LeMaster shares National Association of State Energy Officials whitepaper, Beneath the Surface: Opportunities and Strategies to Improve the Energy Performance of State Water Conveyance, Treatment, and Irrigation Systems, an examination of the connections and interactions between energy and water policy.

Kenya Stump shares an article published by Berkeley Laboratory, New National Lab Study Quantifies the Cost of Transmission for Renewable Energy

### **About Us**



We believe in our mission to utilize Kentucky's energy resources for the betterment of the Commonwealth while protecting and improving our environment.

Congratulations to Gregory Bone, OEP Research Analyst, upon successful completion of a threemonth certification program, Machine Learning, from Cornell University. Greg earned a degree in Economics from Murray State University and a Master's degree in International Economics from the Patterson School of Diplomacy and International Commerce, University of Kentucky. He has been a member of the OEP team for more than five years.

# Partner Spotlight



The Christian Outreach with Appalachian People, Inc. focuses on providing sustainable, affordable, safe, and energy efficient housing in Harlan, Bell and Leslie Counties in eastern Kentucky.

#### Viz of the Month

# Kentucky Electricity Generation by Resource Type Story Map

Produced by the Office of Energy Policy, Kentucky Energy and Environment Cabinet.

- Map of Kentucky Electricity Generation
- Overall Electricity Generation
- Coal Electricity Generation
- Natural Gas Generation Renewable & Other sources of Electricity

#### **OEP Out and About**

Through education, outreach and professional development, OEP staff are better equipped to understand and assist stakeholders on how energy impacts daily lives. Here's what we've been working on this month.

Kenya Stump and Eileen Hardy participated in the Energy & Environment Cabinet **GIS Day Conference**, November 13 in Frankfort. The Cabinet hosted the one-day *Lost in Geospace Conference* to celebrate geographic information systems (GIS) technology, a scientific framework for gathering, analyzing, and visualizing geographic data to help us make better decisions. **Presentations** provided a look at several real-world applications of GIS that are making a difference in Kentucky, including drone usage by the divisions of Water, Waste Management, and Abandoned Mine Lands, as they monitor and record conditions.

November 12-15, Greg Bone attended the **Tableau Conference** in Las Vegas Nevada with an additional 18,000 participants. The Tableau Conference is where data people gather to learn, collaborate, and build relationships with other data visualization experts. Tableau is business intelligence software that helps the Office see and understand data nationwide and in Kentucky.

Amanda LeMaster participated in the North American Reliability Electric Corporation grid security exercise, GridEx, November 13-14 in Louisville. The exercise is an opportunity for utilities to demonstrate how they would respond to and recover from simulated coordinated cyber and physical security threats and incidents, strengthen their crisis communications relationships, and provide input for lessons learned. The exercise is held every two years.

#### OEP State Energy Program Grants Support K-12 Education and Affordable Housing Sectors

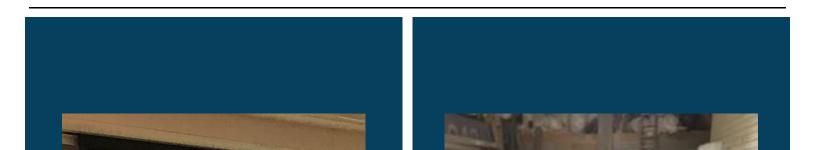
The Office of Energy Policy awarded State Energy Program grants to support energy education in Kentucky's K-12 schools and the affordable housing sectors. The following education events were held this month.

On November 14, The Kentucky National Energy Education Development (NEED) Project held a one day workshop in Frankfort for teachers from the central Kentucky region. It provided hands-on learning experiences, grade appropriate curriculum and exciting ideas for innovative student learning. Additional NEED workshops will be held in Elizabethtown, Gilbertsville, and Somerset, Kentucky

Building contractors from eastern Kentucky attended a two-day training event about Structural Insulated Panels, or SIPs, and and gain hand-on experience to improve energy efficiency and resilience in affordable housing. The **Christian Outreach with Appalachian People (COAP), Inc.** hosted the November 4-5, 2019 event in Harlan, Kentucky.

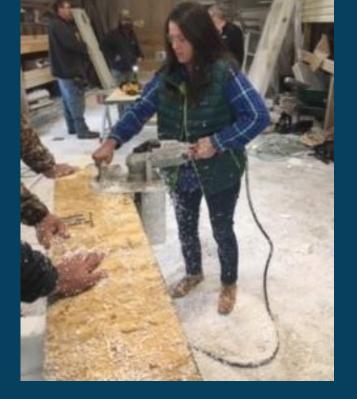
On November 15, Kentucky Habitat for Humanity hosted a Structural Insulated Panel workshop targeted to the local affiliates in the western Kentucky area. Representatives from Bowling Green, Hardin County, Hopkins County, and Fulton-Hickman joined in for a half-day discussion and hands-on experience with Fischer SIPS of Louisville. By the end of the workshop, participants were able to describe and define SIPS for residential applications, explain the energy efficiency design strategies of using SIPS, illustrate SIP design and engineering methods, and understand current assembly standards.

A question and answer session with the Kentucky Office of Energy Policy resulted in feasibility discussions of expanded SIP home offerings through Habitat for Humanity affiliates and well as brainstorming ideas of incorporating more energy efficiency training for affiliates in the Habitat for Humanity network. Follow up items with Fischer SIPS included future tour by Habitat for Humanity affiliates to a SIP construction site and on-site technical assistance from Fischer SIPs. More information about these and other projects funded through the OEP is found on our website.





Karen Reagor, Director of the Kentucky NEED project, provided training for 38 central Kentucky teachers. To learn more, visit <a href="mailto:need.org">need.org</a>.



Amanda LeMaster, Office of Energy Policy, participates in the SIP training hosted by <u>COAP</u>, <u>Inc</u>.



<u>Kentucky Habitat for Humanity</u> SIP School, Madisonville Community College



# **Learning Opportunities**



# USDA and DOE Join Forces to Increase Energy Technology Development and Deployment in Rural America

A memorandum of understanding signed by the two agencies last month will enhance collaboration and coordination and facilitate energy-related investments in America's rural communities; streamlining, leveraging and optimizing program resources; encouraging innovation; offering technical assistance to rural communities; strengthening energy-related

infrastructure; ensuring affordable and reliable power; and helping rural businesses export energy products and manufactured goods around the world. Learn more.



## NASEO Releases Report on Grid-Interactive Buildings

National Association of State Energy Officials recently released a new report, Grid-interactive Efficient Buildings (GEB): State Briefing Paper, which describes how grid-interactive efficient buildings can benefit the grid and building owners and occupants. New technologies that enable flexible load management open opportunities for buildings to reduce energy system stresses and provide grid services that can lower costs, reduce emissions, and improve energy resilience. They can also advance the integration of variable and distributed energy resources into our energy systems. While GEBs offer large potential benefits, they also encounter hindrances and uncertainties. The report outlines...

# YouTube Video OEP Grant Project Supports Energy Efficiency in Owsley County School District



## Fall and Winter Energy Saving Tips





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